



The need for the dosage form

- To mask the **bitter**, **salty**, or **offensive taste** or **odour** of a drug substance.
 - Capsules,
 - Coated tablets,
 - Flavoured syrups.



The need for the dosage form

- To provide liquid preparations of substances that are either **insoluble** or **unstable** in the desired vehicle.
 - **Suspensions.**





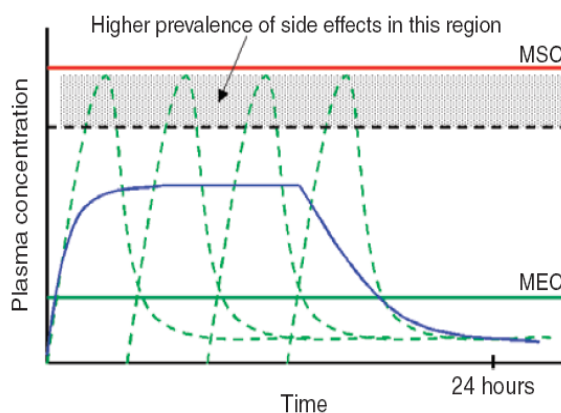
The need for the dosage form

- To provide **clear liquid dosage forms** of substances
 - Syrups, solutions.
 - Solvent, solubilizing agent.



The need for the dosage form

- To provide **rate-controlled drug action**
 - Controlled-release tablets,
 - Delay release capsules
 - Suspensions.





The need for the dosage form

- To provide optimal drug action from **topical** administration sites
 - Ointments, creams, transdermal patches
 - Ophthalmic, ear, and nasal preparations

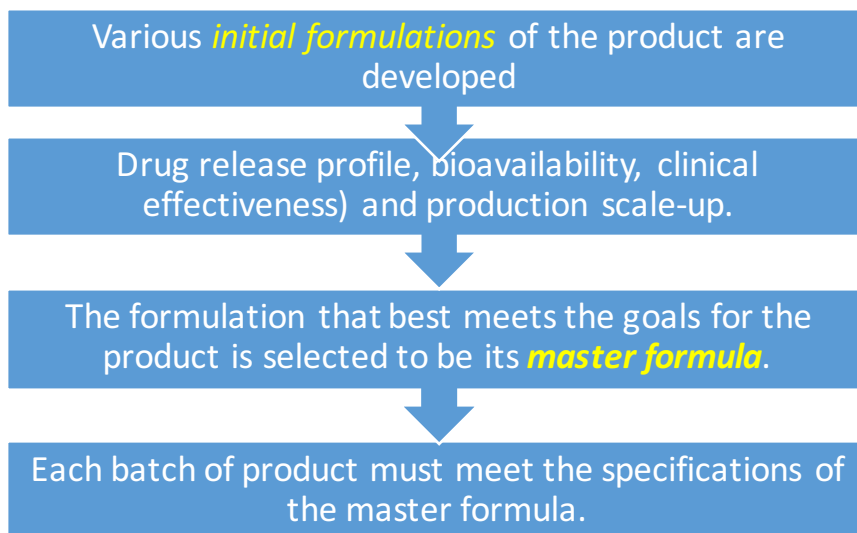


The need for the dosage form

- To provide for insertion of a drug into one of the body's orifices (rectal or vaginal suppositories).
- To provide for placement of drugs directly in the bloodstream or body tissues (injections)
- To provide for optimal drug action through inhalation therapy (inhalants and inhalation aerosols)



The preformulation, a brief summary



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The considerations

Therapeutic matters:

- The nature of the illness,
- The manner in which it is treated (locally or through systemic action),
- Age.

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The considerations, examples

- If the medication is intended for systemic use and oral administration is desired,
 - **Tablets and/or capsules** are usually prepared because they are **easily handled** by the patient and are **most convenient in the self-administration of medication.**

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The considerations, examples

- If a drug substance has application in an emergency in which the patient may be comatose or unable to take oral medication,
 - **An injectable form** of the medication may be prepared.

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The considerations, examples

- Motion sickness, nausea, and vomiting,
 - **Tablets and skin patches** are used for **prevention**
 - **Suppositories and injections** for **treatment**.

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The considerations, examples

- For infants and children younger than 5 years of age,
 - **Pharmaceutical liquids** rather than solid forms are preferred.
 - These liquids are usually administered directly into the infant's or child's mouth by drop, spoon, or oral dispenser.

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The considerations, examples

- When a young patient has a productive cough or is vomiting, gagging, or simply rebellious,
 - some of the liquid will be expectorated.
 - Injections, or suppositories may be helpful.

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The considerations, examples

- If there is difficulty swallowing medication:
 - Chewable tablets.
 - Should be palatable.
 - Capsules may be beneficial here (slippery).
 - if a person has difficulty swallowing a capsule, the contents may be emptied into a spoon, mixed with jam, honey, or other similar food to mask the taste of the medication and swallowed.
 - However, certain tablets and capsules that are designed for controlled release should not be crushed or chewed, because that would interfere with their integrity and intended performance.

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The considerations, examples

- For multiple daily administration of drugs
 - The more distinctive the size, shape, and colour of solid dosage forms, the easier the proper identification of the medications
 - Use of sustained release preparations.

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• More examples

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